

REMARKS/ARGUMENTS

In the Final action dated October 19, 2005, claims 1, 2, 8 – 11, 14, 16 – 19, and 21 were rejected and claims 3 – 7, 12 – 13, 15, and 20 were objected to. In response, Applicants propose amending claims 1, 11, and 16 and hereby request reconsideration of the application in view of the below-provided remarks.

I. Allowable Subject Matter

Applicants note with appreciation that claims 3 – 7, 12 – 13, 15, and 20 were deemed to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In view of the below-provided remarks, Applicants have not rewritten the claims at this time.

II. Claim Rejections Under 35 U.S.C. 102**Independent Claim 11**

Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,466,096 to DeVito. In the Applicants' response to the Office action of June 3, 2005, Applicants argued that DeVito does not disclose first and second VCO control signals that are provided "upon establishing frequency lock." In the "Response to Arguments" section of the Final action, the Examiner replies to the argument by stating that a process disclosed by DeVito (col. 6, lines 46 – 50) of initializing the coarse tune signal to a pre-specified voltage anticipates the claim limitation "upon establishing frequency lock" and that the subsequent changing of the coarse and fine tune signals anticipates the claim limitations of providing the first and second VCO control signals. With respect to the claim limitation "upon establishing frequency lock," the Examiner states in part:

"DeVito discloses in col. 6, lines 46 – 50, that the VCO already has been initialized at a pre-specified voltage. In other words, 'establishing frequency lock' has been established. It is noted that the limitation 'upon establishing frequency lock' is broadly interpreted as locking to a target frequency range since the recitation of claim does not call for a particular target to be seen as 'lock.'" (emphasis added)

Proposed claim amendment: In response to the Final action, Applicants propose amending claim 11 to further define the limitation "upon establishing frequency lock." In particular, Applicants propose adding the limitation, "wherein establishing frequency lock comprises determining that the frequency of the VCO is within a pre-established deadband region." Amended claim 11 as proposed would recite:

"A system for controlling a voltage controlled oscillator (VCO) in a bang-bang phase-locked loop, the system comprising:
a step size controller configured to:
 provide a first VCO control signal to the VCO upon establishing frequency lock, wherein establishing frequency lock comprises determining that the frequency of the VCO is within a pre-established deadband region, said first VCO control signal causing the VCO frequency to change by a first step size; and
 provide a second VCO control signal to the VCO some time after the VCO frequency has changed in response to the first VCO control signal, said second VCO control signal causing the VCO frequency to change by a second step size,
 wherein the first step size is larger than the second step size." (emphasis added to identify amended language)

Support for this amendment is found, for example, in paragraphs [0027], [0032], and [0034] of Applicants' specification. No new matter would be added as a result of this amendment.

Applicants assert that claim 11 as proposed is not anticipated by DeVito because although DeVito discloses initializing the coarse tune signal to a pre-specified voltage and subsequently providing the coarse and fine tune signals to change the frequency of the VCO, DeVito does not disclose providing first and second VCO control signals to a VCO upon "determining that the frequency of the VCO is within a pre-established deadband region" as recited in amended claim 11. That is, setting the coarse tune signal to a pre-specified voltage as disclosed by DeVito is not the same as determining that the frequency of the VCO is within a pre-established deadband region as recited in claim 11.

In sum, Applicants propose amending claim 11 to further define the limitation "upon establishing frequency lock" in a manner that more particularly points out the subject matter which Applicants regard as the invention. Applicants assert that the proposed amendment raises no new issues and respectfully request that the proposed amendment be entered to place the case in condition for allowance or in better form for consideration on appeal.

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Claim 1

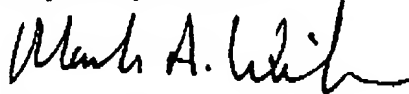
Claim 1 is a method claim that has limitations similar to the system of claim 11. Applicants propose amending claim 1 similar to claim 11. Because of the similarities between claims 1 and 11, Applicants assert that the remarks provided above with respect to claim 11 apply also to claim 1.

Independent Claim 16

Claim 16 is a system claim that has limitations similar to the system of claim 11. Applicants propose amending claim 16 similar to claim 11. Because of the similarities between claims 16 and 11, Applicants assert that the remarks provided above with respect to claim 11 apply also to claim 16.

Applicants respectfully request reconsideration of the claims in view of the remarks made herein.

Respectfully submitted,



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